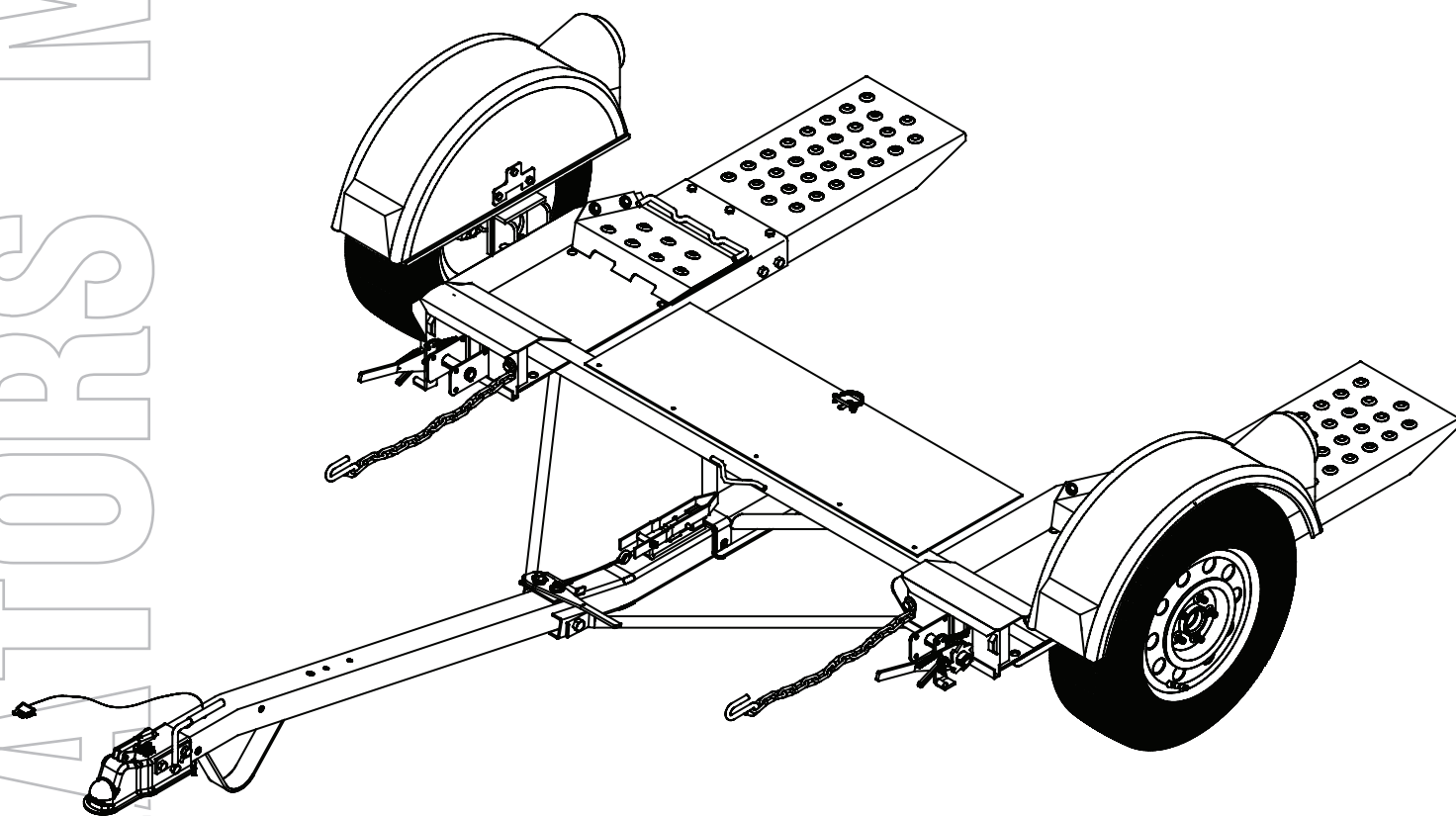




Demco

Tow-It 2



ASSEMBLY
CALIBRATION
OPERATION
REPLACEMENT PARTS

READ complete manual CAREFULLY
BEFORE attempting operation.

Doing Our Best To Provide You The Best

WARRANTY POLICY & REGISTRATION

Go online to www.demco-products.com to review Demco warranty policies and register your Demco product.

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WARNING: To Prevent Serious Injury Or Death

- Exceeding weight limitations or not using a towing vehicle larger and at least 1,000 lbs. heavier than the tow dolly and the towed vehicle combined can result in loss of towing vehicle control, separation of the tow dolly from the towing vehicle, or separation of the towed vehicle from the tow dolly
- All vehicles to be towed on Demco Tow Dollies must be towed with the front axle on the dolly.

It is recommended that two people set-up and load this piece of equipment

If you are planning to tow a new or late model full size car, we recommend the 8-1/2' wide unit.

"Reporting Safety Defects"

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying DEMCO.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or DEMCO.

To contact NHTSA, you may either call the Auto Safety Hot line toll-free at 1-800-424-9393 (or 366-0129 in Washington, D.C. area) or write to:

NHTSA,
U.S. Department of Transportation
Washington, D.C. 20590.

You can also obtain other information about motor vehicle safety from the Hot line.

SAFETY

TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND THE SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.



THIS SYMBOL MEANS

-ATTENTION

-BECOME ALERT

-YOUR SAFETY IS INVOLVED!

SIGNAL WORDS

Note the use of the following signal words **DANGER**, **WARNING**, and **CAUTION** with the safety messages. The appropriate signal word for each has been selected using the following guidelines:

DANGER:

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.

WARNING:

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION:

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

If you have questions not answered in this manual, require additional copies, or if your manual is damaged, please contact your dealer or Demco, 4010 320th Street, P.O. Box 189, Boyden, IA 51234
ph: (712) 725-2311 Toll Free: 1-800-543-3626 Fax: (712) 725-2380 <http://www.demco-products.com>



SAFETY...YOU CAN LIVE WITH IT



EQUIPMENT SAFETY GUIDELINES

Every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You the operator, can avoid many accidents by observing and following precautions in this section. To avoid personal injury, study the following precautions and insist those working with you, or you yourself, follow them.

In order to provide a better view, certain illustrations in this manual may show an assembly with a safety shield removed. However, equipment should never be operated in this condition. Keep all shields in place. If shield removal becomes necessary for repairs, replace shield prior to use.

Replace any caution, warning, danger or instruction safety decal that is not readable or is missing. Location of such decals is indicated in this booklet.

Do not attempt to operate this equipment under the influence of alcohol or drugs.

Review safety instructions with all users.

Operator should be a responsible adult. **DO NOT ALLOW PERSONS TO OPERATE OR ASSEMBLE THIS UNIT UNTIL THEY HAVE DEVELOPED A THOROUGH UNDERSTANDING OF SAFETY PRECAUTIONS AND HOW IT WORKS.**

Do not paint over, remove, or deface any safety signs or warning decals on your equipment. Observe all safety signs and practice instructions on them.

Never exceed limits of a piece of machinery. If its ability to do a job, or to do so safely is in question-**DON'T TRY IT.**



LIGHTING AND MARKING

It is the responsibility of the customer to know the lighting and marking requirements of the local highway authorities and to install and maintain the equipment to provide compliance with the regulations. Add extra lights when transporting at night or during periods of limited visibility.

Lighting kits are available from your dealer or from the manufacturer.



REMEMBER

Your best assurance against accidents is a careful and responsible operator. If there is any portion of this manual or function you do not understand, contact your local authorized dealer or the manufacturer.



SAFETY SIGN CARE

- Keep safety signs clean and legible at all times.
- Replace safety signs that are missing or have become illegible.
- Replace parts that displayed a safety sign should also display the current sign.
- Safety signs are available from your distributor, dealer parts department, or the factory.

How to install safety signs:

- Be sure that the installation area is clean and dry.
- Decide on the exact position before you remove the backing paper.
- Remove the smallest portion of the split backing paper.

- Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
- Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal into place.
- Small air pockets can be pierced with a pin and smoothed out using the piece of decal backing paper.



TIRE SAFETY

- Failure to follow proper procedures when mounting a tire on a rim can produce an explosion which may result in a serious injury or death.
- Do not attempt to mount a tire unless you have the proper equipment and experience to do the job.
- Inflating or servicing tires can be dangerous. Whenever possible, trained personnel should be called to service and/or mount tires.
- Always order and install tires and wheels with appropriate capacity to meet or exceed the anticipated weight to be placed on the equipment.



BEFORE OPERATION:

- Carefully study and understand this manual.
- Do not wear loose-fitting clothing which may catch in moving parts.
- Always wear protective clothing and substantial shoes.
- Keep wheel and lug nuts tightened to specified torque.
- Assure tires are inflated evenly.
- Give the unit a visual inspection for any loose bolts, worn parts, or cracked welds, and make necessary repairs. Follow the maintenance safety instructions included in this manual.
- Be sure there are no tools lying on or in the equipment
- Do not use the unit until you are sure that the area is clear, especially around children and animals.
- Don't hurry the learning process or take the unit for granted. Ease into it and become familiar with your new equipment.
- Practice operation of your equipment and its attachments. Completely familiarize yourself and other operators with it's operation before using.
- Make sure that the brakes are evenly adjusted (if equipped with brakes)
- Securely attach to towing unit. Use a high strength, appropriately sized hitch pin with a mechanical retainer and attach a safety chain.
- Do not allow anyone to stand between the tongue or hitch and the towing vehicle when backing up to the equipment.
- Make Sure the tow rating on vehicle is high enough for what it is towing.



DURING OPERATION

- **SAFETY CHAIN** -A safety chain must be obtained and installed. Always follow state and local regulations regarding safety chain and auxiliary lighting when towing equipment on a public high way. Be sure to check with local law enforcement agencies for your own particular regulations. Only a safety chain (not an elastic or nylon/plastic tow strap) should be used to retain the connection between the towing and towed machines in the event of separation of the primary attaching system.
- Install the safety chains by criss crossing chains under tongue and secure to draw bar cage, mounting loops, or bumper frame.
- Beware of bystanders, **PARTICULARLY CHILDREN!** Always look around to make sure that it is safe to start the engine of the towing vehicle or move the unit. This is particularly important with higher noise levels, as you may not hear people shouting.
- **NO PASSENGERS ALLOWED**- Do not carry passengers anywhere on or in equipment.
- Do not clean, lubricate, or adjust your equipment while it is moving.
- When halting operation, even periodically, set the or towing vehicle brakes, shut off the engine, and **remove the ignition key**.
- Be extra careful when working on inclines.
- **Maneuver towing vehicle at safe speeds.**
- Avoid loose fill, rocks, and holes; they can be dangerous for equipment operation or movement.
- Allow for unit length when making turns.
- Keep all bystanders and pets clear of the work area.
- Operate the towing vehicle from the operators seat only.
- Never stand alongside of unit with engine running or attempt to start engine and/or operate machine while standing alongside of unit.
- Never leave running equipment attachments unattended.
- As a precaution, always recheck the hardware on equipment following every 100 hours of operation. Correct all problems. Follow the maintenance safety procedures.



FOLLOWING OPERATION

- Following operation, or when unhitching, stop the towing vehicle, set the brakes, shut off the engine and **remove the ignition keys**.
- Store the unit in an area away from human activity.
- Do not permit children to play on or around the stored unit.
- Make sure all parked machines are on a hard, level surface and engage all safety devices.
- Wheel chocks may be needed to prevent unit from rolling.



HIGHWAY AND TRANSPORT OPERATIONS

- Adopt safe driving practices:
 - Always drive at a safe speed relative to local conditions and ensure that your speed is low enough for an emergency stop.
 - Reduce speed prior to turns to avoid the risk of overturning.
 - Always keep the towing vehicle in gear to provide engine braking when going downhill. Do not coast.
 - Do not drink and drive!

- Comply with state and local laws governing highway safety on public roads.
- Use approved accessory lighting flags and necessary warning devices to protect operators of other vehicles on the highway during transport. Various safety lights and devices are available from your dealer.
- Local laws should be checked for all highway lighting and marking requirements.
- Plan your route to avoid heavy traffic.
- Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc.
- Be observant of bridge loading ratings. Do not cross bridges rated lower than the gross weight at which you are operating.
- Watch for obstructions overhead and to the side while transporting.
- Always operate equipment in a position to provide maximum visibility at all times. Make allowances for increased length and weight of the equipment when making turns, stopping the unit, etc.



PERFORMING MAINTENANCE

- Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.
- Make sure there is plenty of ventilation. Never operate the engine of the towing vehicle in a closed building. The exhaust fumes may cause asphyxiation.
- Before working on this machine, stop the towing vehicle, set the brakes, shut off the engine and **remove the ignition keys**.
- Be certain all moving parts and attachments have come to a complete stop before attempting to perform maintenance.
- **Always** use a safety support and block wheels. Never use a jack to support unit.
- Always use the proper tools or equipment for the job at hand.
- Use extreme caution when making adjustments.
- Follow the torque chart in this manual when tightening bolts and nuts.
- Openings in the skin and minor cuts are susceptible to infection from brake fluid. **Without immediate medical treatment, serious infection and reactions can occur.**
- Replace **all shields** and guards after servicing and before moving.
- After servicing, be sure all tools, parts and service equipment are removed.
- Do not allow grease or oil to build up on the actuator, any step, or platform.
- When replacing bolts, refer to the owner's manual.
- Refer to bolt torque chart for head identification marking.
- Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to original specifications. The Manufacturer will not claim responsibility for use of unapproved parts and/or accessories and other damages as a result of their use.
- If equipment has been altered in any way from original design, the manufacturer does not accept any liability for injury or warranty.
- A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment
- Periodically check all bolts and nuts to insure proper tension or torque.
- Grease the center pivot pin every **1500** miles.
- An occasional drop of oil may be required on the moving parts of the tie-down winch.



PRECHECK AND LOADING

Safety is of utmost importance at all times. There are several items that must be checked each time before using and while using the tow dolly.

Make sure all bolts are properly tightened and those requiring a set torque are up to specifications:

Lug Nuts - 120 ft. lbs.

Check lug nut tension after the first 5 miles and periodically thereafter.

The tires must be inflated to the recommended PSI (located on side of tire).

The ball hitch must latch securely around the ball and the safety ball clamp must be in position to lock the hitch on the ball.

RECOMMENDED BALL HEIGHT: 18" to the top of the ball.

The transport safety chains must be hooked to the frame of the towing vehicle and the towed vehicle safety chain must be hooked to the towed vehicle frame directly above the area where the chain is mounted on the tow dolly. Leave some slack in the chain to allow suspension movement.

Caution the user not to attempt to back-up the tow dolly as damage may be done to the tow dolly and/or the vehicle being towed.

Check to make sure that all lights are in proper working order.

Examine the ramps, winches and straps, making sure they are in good condition.

Be certain the safety lock pin is locking the strap winch.

Re-tighten straps after the first 5 miles and every 50 miles thereafter to ensure that they are tight.

The strap on the optional winch must be in good condition and should be wound neatly on winch when not in use.

NOTE: The winch strap must not be left connected to the towed vehicle after it is loaded and strapped down.

IMPORTANT LOADING INSTRUCTION **Check your wheel tie-down straps.**

Your tow dolly is equipped with custom made wheel tie-down straps of a standard size that will fit most tires, however if your tires are too large or too small you will want to exchange these new straps for the proper size straps.

1. **Tire too large** - This is very obvious. The strap will not basket over the tire properly. Call us. We will provide at NO Charge, on an exchange basis, the proper size strap. You must return your new, unused straps and provide us with the Make and Model of your car and the tire size.
2. **Tire too small** - This is not as obvious. The basket will fit down over the tire very well. The problems cannot be readily seen. You must tighten the straps down solid and then check on the inside of the tire and be sure the strap, **when tightened, does not come in contact with any metal that may cause wear or cutting such as strut mounts**. If there is contact, you need a smaller strap. Call us. We will provide on a NO Charge, exchange basis, the proper size strap. You must return your new, unused straps and provide us with the Make and Model of your car and tire size.



WARNING: To Prevent Serious Injury Or Death

FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN LOSS OF TOWING VEHICLE CONTROL, SEPARATION OF THE TOW DOLLY FROM THE TOWING VEHICLE, SEPARATION OF THE TOWED VEHICLE FROM THE TOW DOLLY

REMINDER: Check lighting for proper operation before heading down the road.

1. Check that the WHITE ground wire of the wiring harness is connected to the tow dolly frame and the WHITE (ground) wire is connected to the frame of the towing vehicle.
2. With headlights in "ON" position, the taillight should be lighted.
3. Start engine and have someone depress brake pedal. Brake lights of the tow dolly and towing vehicle should come "on" and "off" simultaneously with each application.
4. Put left turn signal on. Left turn light of tow dolly and towing vehicle should flash simultaneously. Should the turn signal light of the tow dolly function opposite to those of the towing vehicle, it is probable that the YELLOW and GREEN wires have been reversed. Check the plug connection under the tongue of the tow dolly to make sure wire colors are not crossed at that point. If plug connection is correct, correct problem by reversing yellow and green wire connection on the towing vehicle.

The owner assumes all responsibility for the towing vehicle's fitness and suitability to perform the towing task in a safe, legal, and reliable manner. These responsibilities include, but are not limited to:

- Compliance with towing restrictions as stated by the towing vehicle's owners manual and/or manufacturer.
- Towing vehicle must have as a minimum a Class 3-5,000 lb.(for non-brake units) or a Class 4-6,000 lb.(for brake units) hitch and hitch ball. Do not use any other size hitch ball.
- Towing vehicle must be in good condition.
- Towing vehicle must have a current federal and/or state inspection where applicable, and comply with any applicable laws.
- The towing vehicle's weight must be substantially greater (at least 1000 lbs.) than the weight of the tow dolly and towed vehicle combined.
- Make sure all lights are properly hooked up and operating at all times.
- Towing vehicle's hitch must be approximately 18 inches off the ground (measured to the top of the ball). Make sure that the hitch and hitch ball are in good condition and not rusted, loose or stripped. Both the hitch and the hitch ball must be securely attached to the towing vehicle.
- Reading and following these instructions.

TOWED VEHICLE WEIGHT & SIZE LIMITATIONS:

Tread Width	42" Min.	68" Max.
Body Width	68" Max.	
	<u>FWD</u>	<u>RWD</u>
T1210	3400 lbs.	3700 lbs.
T1210SB	4800 lbs.	5300 lbs.

FWD = Front Wheel Drive Towed Vehicle

RWD = Rear Wheel Drive Towed Vehicle

Do not load the towed vehicle with cargo. Towed vehicles exceeding weight limits will overload the tow dolly and may cause serious injury and damage to both the towed vehicle and dolly. Do not load a towed vehicle exceeding the width limit - it will obstruct the platform's swivel action when underway and could damage the towed vehicle and/ or the tow dolly.

Do not exceed 55 miles per hour or any lower posted speed limit.

WARNING

Check your vehicle owners manual or registration for vehicle weight. Towing vehicle must be larger and at least 1000 lbs. heavier than the towed vehicle and tow dolly combined.



Warning

Examine ramps, winches and straps to make sure they are in good condition. Check wheel nuts every trip.

To check the towing system after hook-up, tow about 100 feet. Then stop and perform a safety check. Check the bolts, chains, tire straps, ramps, coupler latch and other items, to ensure that they are tight. In addition, check all taillights and stoplights to make sure that they are operating properly. Repeat the safety check after the first 5 miles and every 50 miles thereafter.

Tire inflation must be maintained per recommendation of tire manufacturer (located on side wall of tire).

Tire pressure may increase during travel - do not bleed off this increase in pressure.

Recheck coupler to be sure it is properly secured to the ball. Check tightness of coupler latch.

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rev. 3-94

Loading Angle Clearance Guide

Tow It Loading Angle = 16°

NOTE: User's responsibility for checking clearance

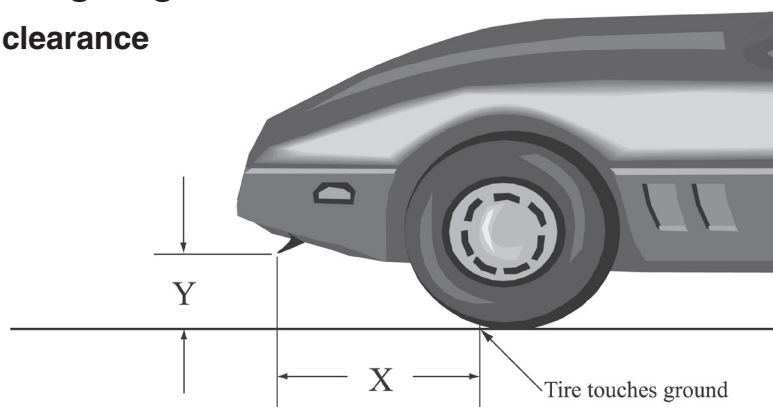
IMPORTANT:

Using this guideline will reduce the chance of the towed vehicles air dam, or bottom of fascia from interfering with tow dolly platform and/or tire stop. "X" must be less than 3.5 x "Y".

Example: If Y measures 6"

$$3\frac{1}{2} \times 6 = 21$$

X must measure less than 21"



BOLT TORQUE

TORQUE DATA FOR STANDARD NUTS, BOLTS, AND CAPSCREWS.

Tighten all bolts to torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt chart as guide. Replace hardware with same grade bolt.

NOTE: Unless otherwise specified, high-strength Grade 5 hex bolts are used throughout assembly of equipment.

Bolt Torque for Standard bolts *



Torque Specifications

Torque Lug Nuts to 120 FT/LBS

"A"	GRADE 2		GRADE 5		GRADE 8	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
1/4"	6	(8)	9	(12)	12	(16)
5/16"	10	(13)	18	(25)	25	(35)
3/8"	20	(27)	30	(40)	45	(60)
7/16"	30	(40)	50	(70)	80	(110)
1/2"	45	(60)	75	(100)	115	(155)
9/16"	70	(95)	115	(155)	165	(220)
5/8"	95	(130)	150	(200)	225	(300)
3/4"	165	(225)	290	(390)	400	(540)
7/8"	170	(230)	420	(570)	650	(880)
1"	225	(300)	630	(850)	970	(1310)

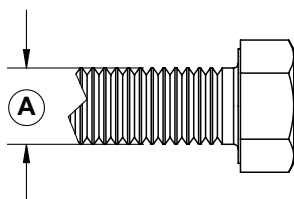
Bolt Torque for Metric bolts *

"A"	CLASS 8.8		CLASS 9.8		CLASS 10.9	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
6	9	(13)	10	(14)	13	(17)
7	15	(21)	18	(24)	21	(29)
8	23	(31)	25	(34)	31	(42)
10	45	(61)	50	(68)	61	(83)
12	78	(106)	88	(118)	106	(144)
14	125	(169)	140	(189)	170	(230)
16	194	(263)	216	(293)	263	(357)
18	268	(363)	--	--	364	(493)
20	378	(513)	--	--	515	(689)
22	516	(699)	--	--	702	(952)
24	654	(886)	--	--	890	(1206)

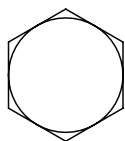
Torque figures indicated are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

* GRADE or CLASS value for bolts and capscrews are identified by their head markings.

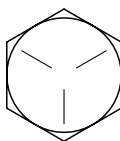
Torque 11MM caliber bolts to 40 ft/lbs



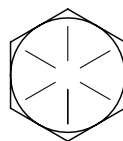
GRADE-2



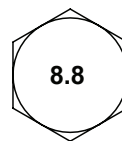
GRADE-5



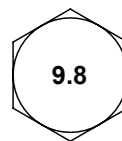
GRADE-8



CLASS 8.8



CLASS 9.8



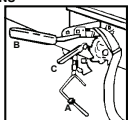
CLASS 10.9



Decal Location

WINCH OPERATING INSTRUCTIONS

Remove winch lock pins (A) from strap winches on front of tow dolly.
Release winch: Grasp handle (B) squeeze trigger (C) push down and pull A excess strap from winch. Lay tire strap to outside of tow dolly.
Tighten straps: Place tie straps over tires centering straps and winches to tires. While tightening straps, pull cross straps forward to ensure even tightening. Tighten straps until each tire starts to flatten against tire stop. After strap is tight, insert lock pin into winch.



0021014

A. DD21016 QTY. 2

Keep wheel lug nuts or bolts tightened to specified torque.

Maintain tire pressure at 50 P.S.I. cold

B. DA21001 QTY. 2

**Keep wheel nut torque to 120 ft.lbs.
Maintain tire pressure at 50 P.S.I. Cold**

C. RD21008 QTY. 2



E. DD21021 QTY. 4

⚠ WARNING

Read following information before hooking up, loading, using, unloading or unhooking TCM-1 to prevent property damage, serious injury, or

IMPORTANT DO'S & DON'TS

- ▲ Need timing instructions in towed vehicle manual.
- ▲ Tow 2,500 lb. (or greater) capacity but in 70% gear.
- ▲ Assume towing vehicle parking brake is fully engaged before starting towing. Holding.
- ▲ Don't tow towed vehicle on TOW/H if TOW/H is completely and properly latched up on towing vehicle.
- ▲ Always check front wheels of towed vehicle onto TOW/H. Do not tow back wheels.
- ▲ Don't tow towed vehicle if you have no parking/operating power or all tires.
- ▲ Don't tow towed vehicle that exceeds weight of towing vehicle.
- ▲ Always have someone safely guide you when hitching towed vehicle onto TOW/H.
- ▲ Assume tires of towed vehicle and TOW/H are in good condition and you have sufficient tire pressure. Increase during driving. Do not TOW/H off.
- ▲ Don't tow towing vehicle with TOW/H off attached. TOW/H activates both on-coupler and on-air platform. If you shut off TOW/H, you shut off both.
- ▲ Don't tow towed vehicle and towed vehicle on TOW/H separately. Pull a safe-jump when you can pull both vehicles.
- ▲ Breaking distance increases when using TOW/H.
- ▲ Use caution and always allow sufficient braking distance.
- ▲ Avoid sharp turns or swerves.
- ▲ Disengage HDS to lower gear. Avoid sudden braking or shifts to slower when descending a hill.
- ▲ Avoid overloading passengers or cargo in vehicle being towed.
- ▲ Don't untow TOW/H from towing vehicle until you are stopped.

IMPORTANT INFORMATION

Customer Responsibilities

owner who must ensure that weight and size limits of TOW-IT will not be exceeded by vehicle being towed. Any injury or damage that results from improper use or exceeding weight or size limits is sole responsibility of owner.

Towing Vehicle Requirements:

Owner assumes all responsibility for towing vehicle's fitness and suitability to perform towing task in safe, legal, and reliable manner. These responsibilities may include, but are not limited to:

- Towing vehicle weight being substantially greater (at least 1000 lbs.) than weight of TOW/IT and towed vehicle combined.
- Compliance with towing restrictions as stated by towing vehicle owner's manual or manufacturer.
- Towing vehicle having minimum of 5000 lb. hitch and hitch ball. Hitch ball must be 2". Do not use any other size hitch ball.
- Towing vehicle's hitch being approximately 18 inches to top of hitch ball. Make sure that hitch and hitch ball are in good condition and not rusted, bent or stripped. Both hitch and hitch ball must be securely attached to towing vehicle.
- Towing vehicle must be in good condition.

- Towing vehicle having a current federal or state inspection where applicable, and complying with any applicable laws.

- Assume all lights are properly hooked up and operating at all times.

Load Weight and Size Limits

Load weight is total weight of towed vehicle.
Overloading TOW-IT may cause serious injury
or damage to both towed vehicle and TOW-IT.

Maximum Towed Vehicle Weight	
TI 210	TI 210SB
2000 lbs.	4000 lbs.

Size limit is overall width. Toward vehicle exceeding size limit will obstruct platform's loading pattern when loaded and could damage

TI 210: 68" max.
425 min.

42° min.
Ti 210SB: 76° max.
42° min.

INSTRUCTIONS

TOW-IT Hook-Up

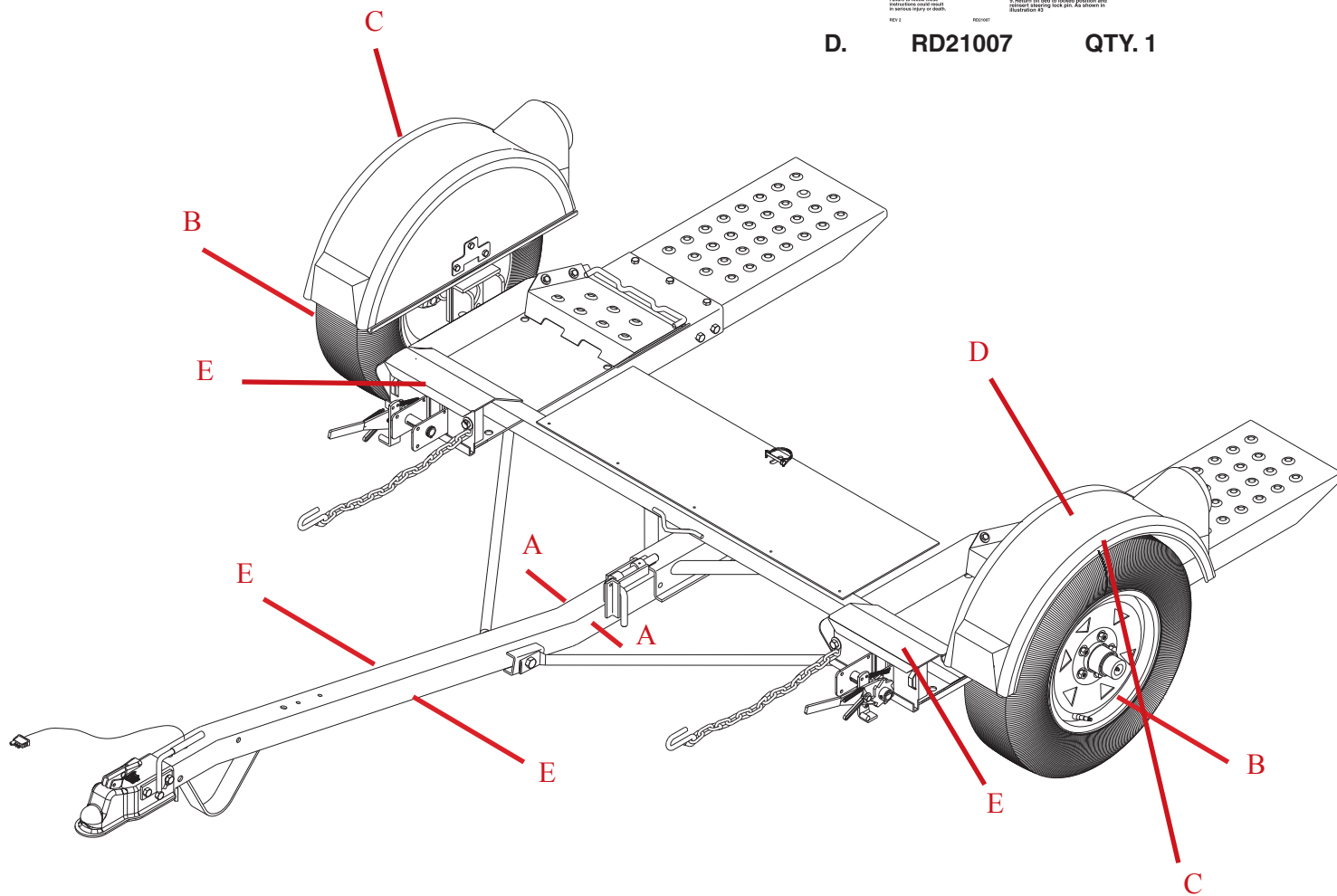
1. Assure towing vehicle parking brake is fully engaged.

2. Loosen coupler lock, place coupler of TOW-IT over 2" Nitch ball on towing vehicle. *Assure coupler is fully seated on ball but then completely tighten coupler lock. Pull up on TOW-IT handle to assure it is properly secured.*
- NOTE:** *Assure that hitch and hitch ball are in good condition and not rusted, loose or stripped. If the hitch or hitch ball must be securely attached to towing vehicle.*
3. Connect TOW-IT wire harness to connector on towing vehicle and check lights for proper operation.
4. *Criss cross safety chains or cables under tongue, thread hook of chain or cable through mounting loop beneath frame, making sure both ends of hook is fully closed. Also check for enough slack in chains or cables for movement during turns.*
5. *Failure to follow these instructions could cause injury or death.*
- 

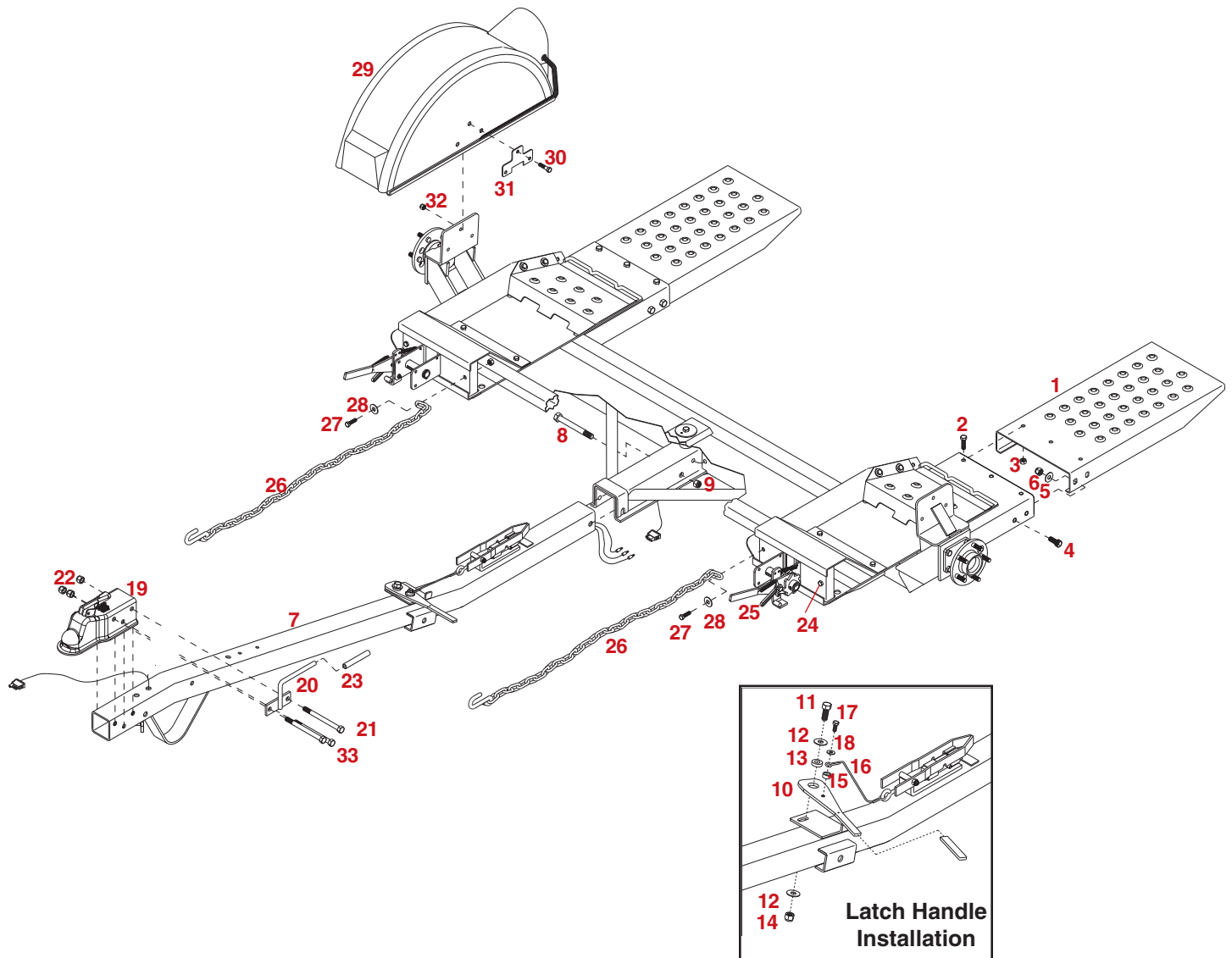


Background

D. RD21007 QTY. 1



Tow-It 2 ASSEMBLY INSTRUCTIONS



1. Place the mainframe on blocks or some other sturdy support so that the frame rests approximately 8"-10" off the ground. Attach the tilt bed ramps (#1) as shown using three 7/16" x 1" grade 8 bolts (#2) and lock nuts (#3) on the top of each ramp and four 1/2" x 1-1/4" grade 5 bolts (#4), flatwasher (#5) and locknuts (#6) (two on each side of the ramp). Torque the 7/16" bolts to 80 ft. lbs. and torque the 1/2" bolts to 75 ft. lbs.
2. Hold the tongue (#7) up to the front of the tow dolly and locate the three bullet connectors extending out the back of the tongue and plug into the connector protruding from under the mainframe channel. **Do not cross colors when making this connection.**
3. Mount the tongue to the front of the tow dolly using one 5/8" x 4-1/2" grade 5 bolt (#8) and locknut(#9) (torque to 50 ft. lbs.). Do not torque over 50 ft. lbs. or the bed will not tilt. Make sure the tongue latch is in the latched position to the tilt bed.
4. Mount the latch handle (#10) to the mounting plate using the 1/2" x 1-1/4" grade 5 bolt (#11), two 1/2" flatwashers (#12), bushing (#13), and 1/2" locknut (#14) . Put stainless steel bushing (#15) into latch cable (#16) and secure to handle using 3/8" x 3/4" Epoxied grade 5 hex head bolt (#17) and 5/16" flatwasher (#18). Adjust latch so cable is snug by loosening bolt and nut and sliding handle forward or back.

5. Secure the coupler (#19) and lift handle (#20) to the front end of the tongue with two 1/2" x 4-1/2" gr.5 bolts (#21), one 1/2" x 4" gr.5 bolt (#33) and locknuts (#22) . Torque the locknuts to 60 - 70 ft. lbs. Tap the rubber grip (#23) onto the handle with a rubber hammer or a wooden mallet.
6. Remove the 7/16" x 1-1/4" bolt (#24), flatwasher, and locknut from the outer front panel of each wheel platform tire stop. Slide the tie-down winch (#25) into the channel at the front of the wheel platforms as shown. Note that #25 is the left winch. **The ratchet handles are to the outside of each winch and ratchet springs are to the top.** Attach two 36" towed vehicle safety chains (#26). Secure one chain to **each** wheel platform tire stop with the 7/16" x 1-1/4" bolt (#27), flatwasher (#28) and locknut. Torque the to 50 ft. lbs.
7. When assembling the tie-down strap to the tow dolly winch, make sure the tie-down strap does not contain any twists and the overlaps are to the inside. Weave the front of the tie-down strap through the openings in the buckle. The buckle should be approximately 8" from the end of the strap. Thread the strap end through the winch slot. Bring the strap up and thread it back through the buckle again. The buckle should be approximately 1-1/2" - 2" from the winch.
8. Bolt the fenders (#29) on using 3/8" x 1-1/2" gr. 5 bolts (#30), back-up plates (#31) and locknuts (#32) in each fender. Mount the fender with the light pocket to the rear.
10. **On the left side, plug in bullet plugs with white to white, black to brown and yellow to red. On the right side, plug white to white, black to brown and green to red.**
11. With a pliers, install two wire clamps on fender. From rear of fender lip, install one clamp at 5-1/2" and one at 8".
12. Mount wheels/tires.

NOTE: It is advantageous to wire the fender lights prior to attaching the wheels.

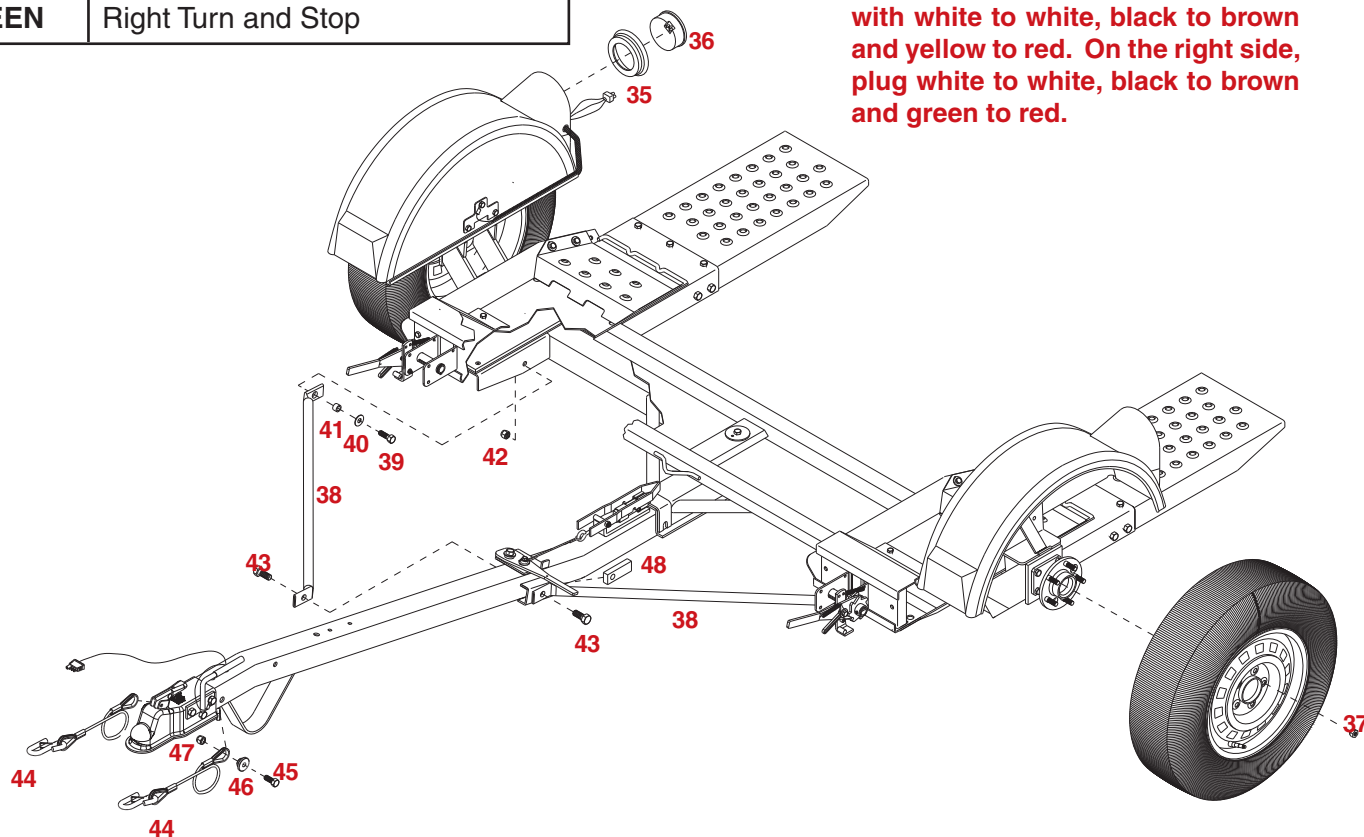
9. Fish the three wires from main unit through the hole in fender.

COLOR CODE FOR WIRING HARNESS

WHITE	Ground
BROWN	Tail Lights and License Plate Light
YELLOW	Left Turn and Stop
GREEN	Right Turn and Stop

FENDER WIRING

On the left side, plug in bullet plugs with white to white, black to brown and yellow to red. On the right side, plug white to white, black to brown and green to red.



11. Push the round rubber light seal (#35) into the light pocket. Be sure the lip is secured in the light housing. Plug the pigtail into the fender light. Push the round light (#36) into the rubber seal until it snaps in firmly. Wire the other fender in the same manner.
12. Attach the tire/rim assembly to the mainframe. Use the supplied lug nuts (#37) and torque to 75 - 80 ft. lbs.
13. Lay the bracing struts (#38) out along the tow dolly tongue with the back end (the end with the larger hole in it) of the bracing strut toward the mainframe. Loosely bolt the back of each bracing strut to the trailer frame as shown using 1/2" x 1-1/2" grade 5 bolt (#39), flatwasher (#40), pivot bushing (#41) and locknut (#42). Hold up the front end (the end with the smaller hole) of each bracing strut to the tongue, slide nut plate (#48) in side tongue channels, align holes and secure with two 5/8" x 1-1/4" epoxied bolt (#43). Torque the bolts with the pivot bushing to 60 - 70 ft. lbs.
14. Attach the two 24" transport safety cables (#44) to the two holes in the angle located under the tongue using two 7/16" x 1-1/4" grade 8 bolts (#45), cable mounting washers (#46), and locknuts (#47). Torque bolts to 50 ft. lbs.

WIRING OF THE TOWING VEHICLE

Connect the wiring to the towing vehicle keeping in mind the color code indicated below.

1. Make certain the towing vehicle lights are "OFF".
2. Connect YELLOW wire to left turn signal and stop wire in the left rear of towing vehicle with the wire splicer (#01883) supplied.
3. Connect GREEN wire to the right turn signal and stop wire.
4. Connect BROWN wire to taillight wire.
5. VERY IMPORTANT - connect WHITE wire to frame of body of towing vehicle. This is the common ground and a clean metal-to-metal contact must be made.

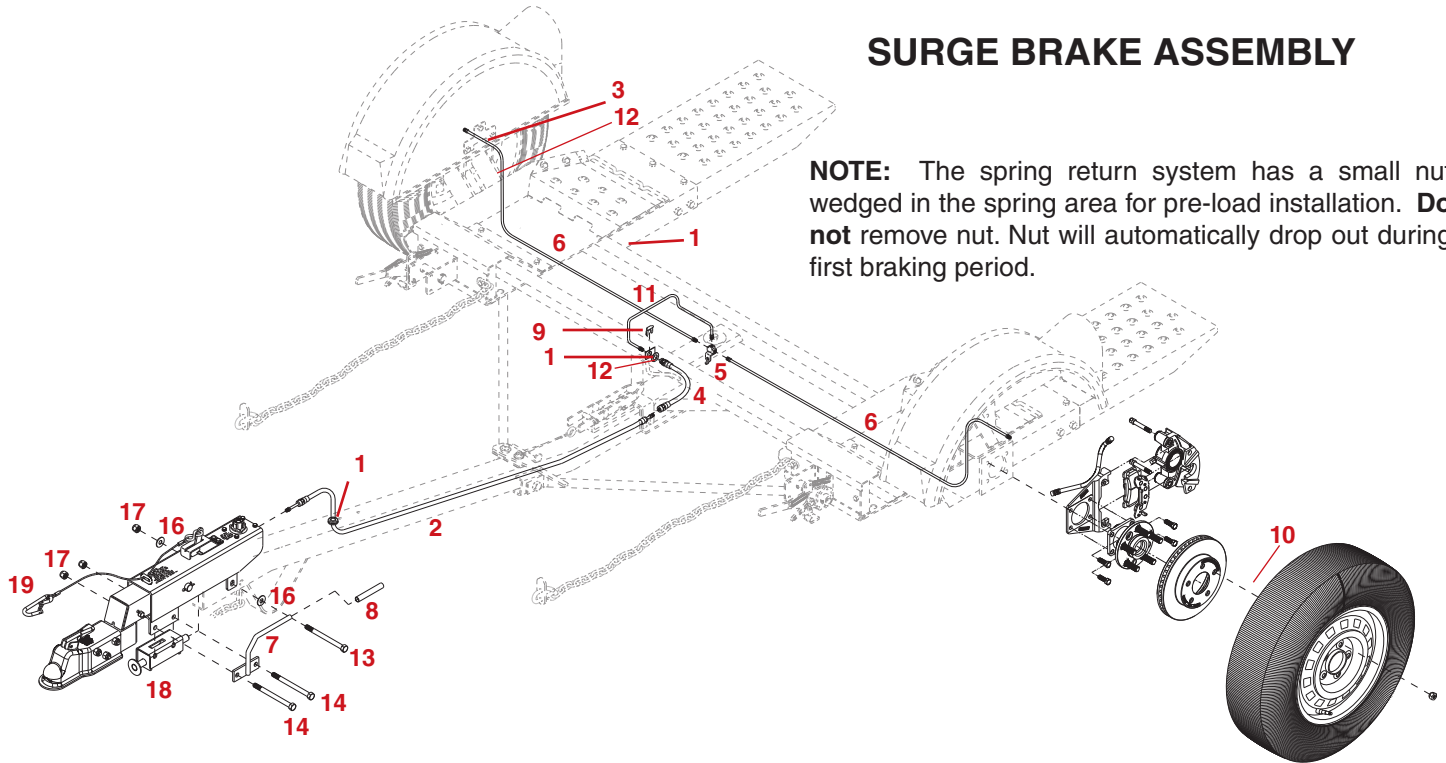
CAUTION: Many flashers for vehicle turn signals will not carry the additional load of tow dolly turn signals. If normal operation does not occur when connected to the tow dolly, a heavy duty replacement flasher may be obtained through auto parts outlets.

TESTING CIRCUITRY

1. Check that the WHITE ground wire of the wiring harness is connected to the tow dolly frame and the WHITE (ground) wire is connected to the frame of the towing vehicle.
2. With headlights in "ON" position, the taillight should be lighted.
3. Start engine and have someone depress brake pedal. Brake lights of the tow dolly and towing vehicle should come "on" and "off" simultaneously with each application.
4. Put left turn signal on. Left turnlight of tow dolly and towing vehicle should flash simultaneously. Should the turn signal light of the tow dolly function opposite to those of the towing vehicle, it is probable that the YELLOW and GREEN wires have been reversed. Check the plug connection under the tongue of the tow dolly to make sure wire colors are not crossed at that point. If plug connection is correct, correct problem by reversing yellow and green wire connection on the towing vehicle.

SURGE BRAKE ASSEMBLY

NOTE: The spring return system has a small nut wedged in the spring area for pre-load installation. **Do not** remove nut. Nut will automatically drop out during first braking period.



1. Slide 1"O.D. x 5/8" I.D. bushing over end of rubber brake line and insert end through hole in the angle bracket welded to the front of the tow dolly main frame, secure the brake line end with a retainer clip. Slit one side of a 5/8" grommet, slide over brake line green/brown wires coming out mainframe tongue channel, push grommet into the tongue channel. Fish the bent 12" metal brake line between the mainframe and top platform. Secure one end to the rubber brake hose and other end into the top of the brake tee on back of tow dolly axle. Make sure these connections are tight.
2. Slide spring return system (19) into tongue tube, secure actuator and lift handle to front end of tongue using two 1/2" x 5" gr. 5 bolts and locknuts. Secure rear of actuator using one 1/2" x 4-1/2" gr. 5 bolt, locknut, and two flatwashers as shown (three bolts, two flatwashers, and three locknuts provided with DA91D actuator). The white ground wire is attached under the head of the second bolt attaching the actuator. **(It is very important that a good ground is made).** Torque the locknuts to 60 - 70 ft. lbs. Tap the rubber grip onto the handle with a rubber hammer or a wooden mallet.
3. Connect DA91 actuator to brake hose coming out the top of the tongue. Make sure all brake line connections are tight. Follow the installation procedure as outlined in the DA91 actuator instruction, beginning with step 3 (fill the master cylinder and the bleeding procedure for brakes).
4. Attach wheels to the mainframe. Use supplied lug nuts, torque to 75 - 80 ft. lbs. The retainer washers on the lug bolts next to the drum have been installed at the factory (two per drum).

BRAKE LINES PARTS LIST

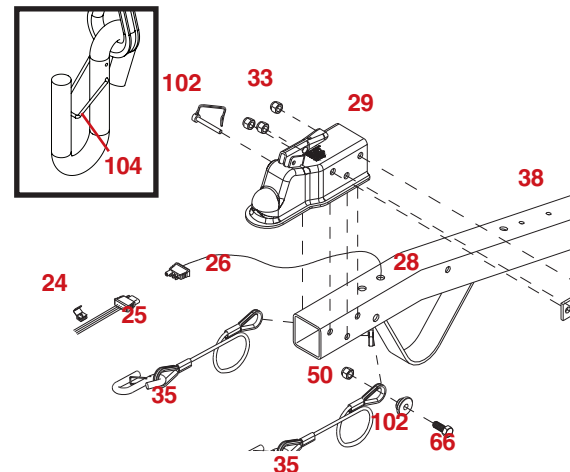
REF. NO.	PART NO.	QTY.	DESCRIPTION
1.	13047	6	Rubber Grommet
2.	12508	1	63" Brake Hose
3.	11616	2	Grommet .625 OD x .375 ID x .125
4.	SB13H66	1	13" Rubber Brake Hose
5.	SB7785	1	3/16" Brake Tee
6.	SB544	2	44" Brake Line
7.	04017	1	Lift Handle
8.	02189	1	Hand Grip
9.	SB7764	1	Brake Hose Clip
10.	04174	4	12mm Drum Retainer Washer
11.	SB512	1	12" Brake Line (Metal)
12.	00496	1	1-1/8" OD x 5/8" ID x 14 GA Washer
13.	01338	1	1/2" UNC x 4-1/2" Hex Head Bolt
14.	01975	2	1/2" UNC x 5" Hex Head Bolt
16.	00085	2	1/2" Flat Washer
17.	02178	3	1/2" UNC Nylon Insert Lock Nut
18.	12445-30	1	Spring Return System
19.	12238	1	Safety Cable 36"

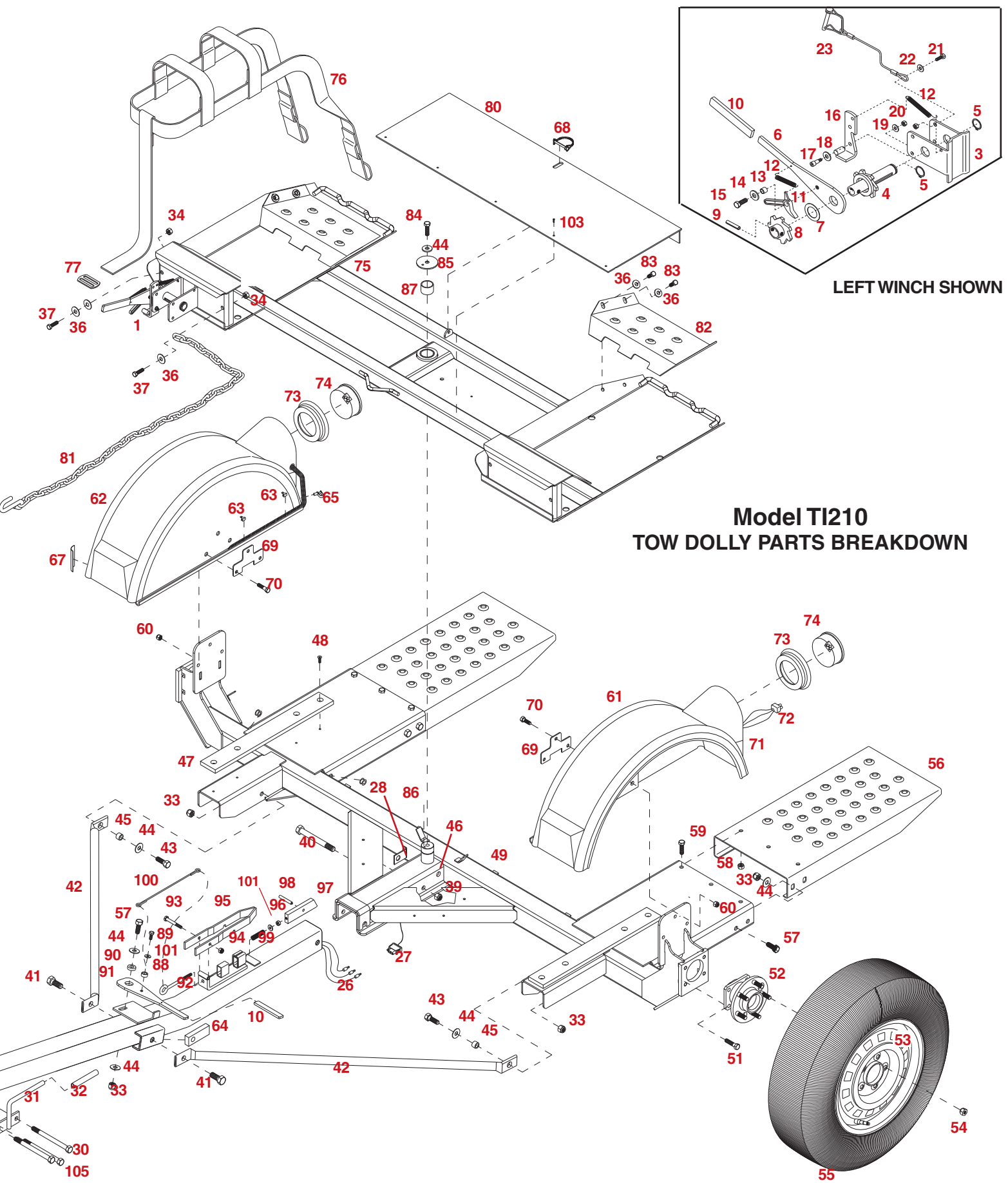
Please order replacement parts by PART NO. and DESCRIPTION.

REF. NO.	PART NO.	QTY.	DESCRIPTION
1.	5432	1	Left Ratchet Winch Assembly (Plated)
-	5433	1	Right Ratchet Winch Assembly (Plated)
3.	03569-95	1	Ratchet Frame
4.	03570-95	1	Left Spool Tube
-	03571-95	1	Right Spool Tube
5.	03577	1	Heavy Duty External Snap Ring
6.	03574-95	1	Ratchet Handle
7.	03668	1	18 Ga. Shim Washer
8.	03575-95	1	Left Ratchet Gear
-	03576-95	1	Right Ratchet Gear
9.	03666	1	5/16" x 1-1/4" Roll Pin
10.	02243	3	Black Vinyl Hand Grip
11.	05450	1	Winch Pawl
12.	01864	2	Winch Pawl Spring SS
13.	05449	1	Winch Pawl Bushing SS
14.	00059	1	3/8" Flatwasher
15.	05444	1	3/8"-16 UNC x 3/4" Hex Bolt w/epoxy
16.	03572-95	1	Left Ratchet Pawl Arm
-	03573-95	1	Right Ratchet Pawl Arm
17.	03578	1	5/16"-18 UNC x 1/2" Shoulder Screw
18.	01998	1	5/16" Flatwasher SS
19.	02002	1	1/4" Flatwasher SS
20.	02772	2	1/4"-20 UNC Nylon Locknut
21.	04055	1	1/4"-20 UNC x 1" Hex Hd. Bolt
22.	00214	1	1/4" Flatwasher
23.	05337	1	Lock Pin w/Cable

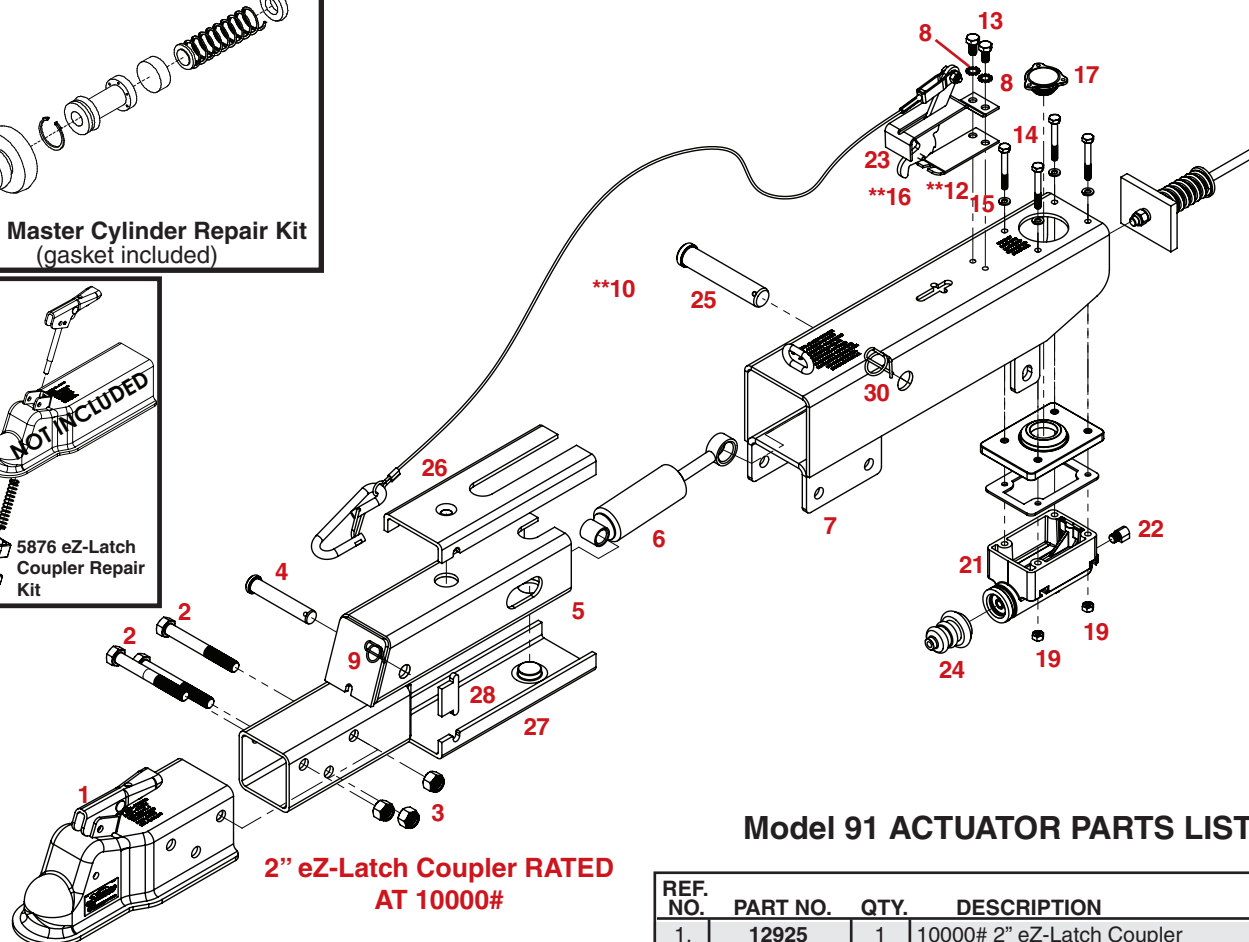
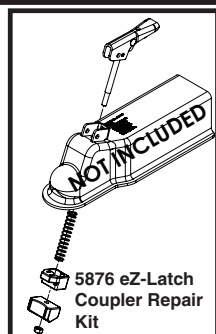
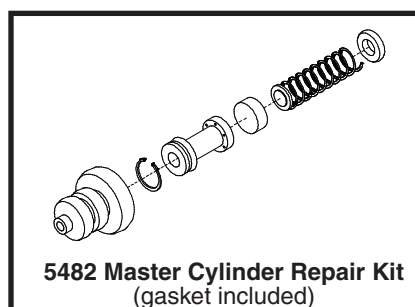
10.	02243	1	Black Vinyl Hand Grip
25.	01881	1	Trunk Connector
26.	11590	1	Front Half Trailer Wiring Harness
27.	11591	1	Rear Half Trailer Wiring Harness
28.	13047	4	1/2" Grommet
29.	12925	1	10000# 2" eZ-Latch Coupler
30.	01338	2	1/2"-13UNC x 4-1/2" Hex Head Bolt (Gr.5)
31.	02288	1	Handle
32.	02189	1	1/2" I.D. Handle Grip
33.	02178	14	1/2"-13UNC Nylon Insert Locknut
34.	02771	4	7/16"-14UNC Nylon Insert Locknut
35.	12236	2	24" Safety Cable Clear Coating w/Hook
-	12238	2	36" Safety Cable Blk w/Hook f/Surge Brake
36.	00059	20	3/8" Flatwasher
37.	01898	4	7/16"-14UNC x 1-1/2" Hex Head Bolt
38.	12714-81	1	Tongue
39.	02587	1	5/8"-11UNC Nylon Insert Locknut
40.	02434	1	5/8"-11UNC x 4-1/2" Hex Head Bolt
41..	03503	2	5/8"-11 UNC x 1-1/4" Hex Hd. Epoxied Bolt
42.	02747-96	2	Bracing Strut
43.	01254	2	1/2-13UNC x 1-1/2" Hex Head Bolt
44.	00085	13	1/2" Flatwasher
45.	02579-95	2	Pivot Bushing
46.	04815	2	3/8" I.D. x 1/2" O.D. Grommet
47.	11780	2	Wearplate (four hole)
48.	11779	8	1/4"x 3/4" Flat Hd Self Tap Screw
49.	11979-81	1	Undercarriage
50.	02209	2	7/16"-20UNF Hex Nut (gr.8)
51.	02210	8	7/16"-20UNF x 1-1/4" Epoxied Bolt (gr.8)
52.	04369	2	Hub and Spindle (5 on 115mm BC)
-	02917	-	Replacement 12mm x 1.5 Stud Bolt
53.	09296	2	14 x 5.5 rim (5 on 115 mm BC)
54.	02933	10	12mm Lug Nut Chrome
55.	13989	2	ST205/75R 14" "C" Radial Tire (8-1/2' unit)
56.	04323-96	2	Tilt Bed Ramp
57.	00967	9	1/2"-13UNC x 1-1/4" Hex Head Bolt
58.	04168	6	7/16"-20UNF Nylon Insert Locknut
59.	04167	6	7/16"-20UNF x 1" Hex Head Bolt (gr.8)
60.	02592	14	3/8"-16UNC Nylon Insert Locknut
61.	5978	1	Left Fender Assembly with Lights

REF. NO.	PART NO.	QTY.	DESCRIPTION
62.	5979	1	Right Fender Assembly with Lights
63.	04425	4	Tinnerman Fender Clamp
64.	11971-95	2	5/8" Nut Plate
65.	05443	2	Cable Hanger - wire harness
66.	02377	2	7/16"-20UNF x 1-1/2" Epoxied Bolt (gr.8)
67.	04508	2	Amber Fender Reflector
68.	11790	1	Latch Pin
69.	04424	2	Back-Up Plate for fender
70.	00914	6	3/8"-16UNC x 1-1/2" Hex Head Bolt
71.	04804	2	Red Fender Reflector
72.	07081	2	3-way Plug Pigtail (tail light)
73.	05447	2	Rubber Mounting Grommet for light
74.	05446	2	Sealed Round Tail Light
75.	11980-81	1	Upper Half Mainframe
76.	03528	2	3-point Tie-Down Strap w/J-Hooks & buckle
77.	02729-95	2	Buckle (only)
80.	11981	1	Top Cover / Lid
81.	02383	2	36" Safety Chain with hook
-	04194	-	7/16" "S" Hook for safety chains
82.	04270-81	2	Rear Tire Stop
83.	00907	8	3/8"-16UNC x 1" Hex Head Bolt
84.	05570	1	1/2"-13UNC x 1" Epoxied Bolt w/zerk
85.	02578	1	1/2" Special Flatwasher
86.	02584	1	3/16" x 3/4" Roll Pin
87.	04083	1	1-3/4" O.D. Bronze Bushing
88.	05449	1	Spacer Bushing - Stainless Steel
89.	05444	1	3/8"-16 UNC x 3/4" Epoxied Hex Bolt
90.	03382-95	1	Latch Handle Pivot Bushing
91.	03574-95	1	Latch Handle
92.	03434	1	5/16"-18 UNC x 4" Eye Bolt
93.	04221	1	5/16"-18 UNC x 2-1/2 Hex Head Bolt
94.	02802	1	5/16-18 UNC Nylon Insert Locknut
95.	03381-95	1	Latch Catch
96.	00007	1	5/16"-18 UNC Hex Nut
97.	03379	1	Latch Block
98.	03435	1	Roll Pin (5/16" x 2-1/4")
99.	03499	1	Latch Spring - Stainless Steel
100.	03433	1	Latch Cable
101.	00004	2	5/16" Flatwasher
102.	01855	1	Pin Safety Lock
103.	12171	5	#10 NC x .75 Self-tapping Screw
104.	12253	-	Safety Hook Spring Clip Replacement
105.	01896	1	1/2"-13UNC x 4" Hex Head Bolt





MODEL DA91 ACTUATOR PARTS BREAKDOWN



BLEEDING THE SYSTEM

The first requirement for safe, sure hydraulic braking is the use of quality brake fluid. Use only DOT-3 or DOT-4 brake fluid from a sealed container.

If pressure bleeding equipment is available, follow the manufacturer's instruction in bleeding the system.

If system must be bled manually, proceed as follows: Fill master cylinder with fluid. Install bleeder hose on top bleeder of first caliper to be bled.

NOTE: always bleed brakes by using the top bleed screw on the caliper.

Have loose end of hose submerged in brake fluid in glass container to observe bubbling.

By loosening the top bleeder screw located on the caliper one turn, the system is open to the atmosphere through the passage drilled in the screw. Pump actuator with long steady strokes. The bleeding operation is completed when bubbles no longer rise to the surface of the fluid. **Be sure to close bleeder screw securely.**

Repeat bleeding operation at each caliper. During the bleeding process, replenish the brake fluid, so the level does not fall below the 1/2 full level in the master cylinder reservoir. After bleeding is complete, make sure master cylinder reservoir is filled and filler cap is securely in place.

After the bleeding operation has been completed, apply pressure to the system and check the whole brake system for leaks.

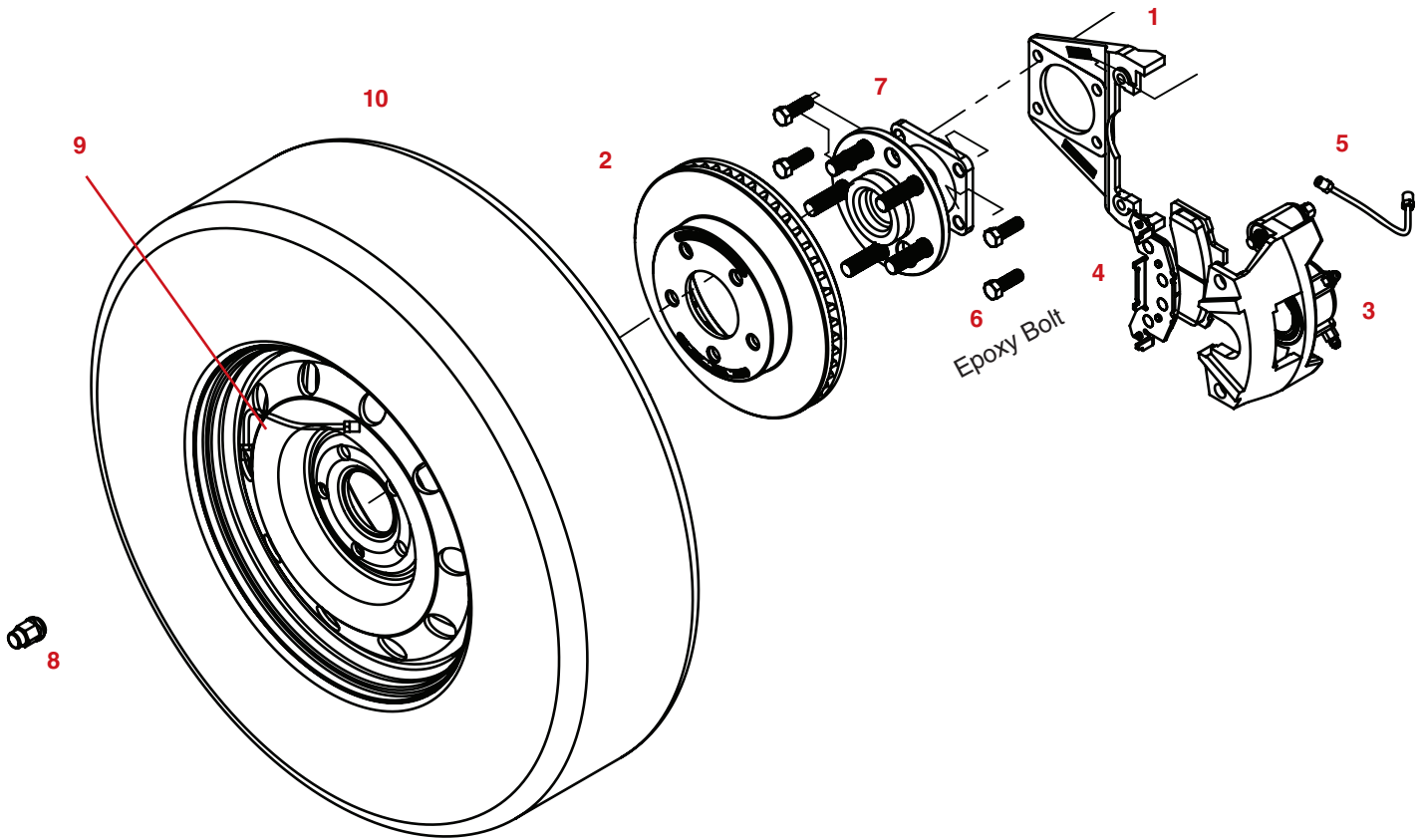
Model 91 ACTUATOR PARTS LIST

REF. NO.	PART NO.	QTY.	DESCRIPTION
1.	12925	1	10000# 2" eZ-Latch Coupler
2.	01896	3	1/2"-13UNC x 4" Hex Head Bolt (gr.5)
3.	02178	3	1/2"-13UNC Nylon Insert Lock Nut
4.	05426	1	Front Shock Pin (drop tube actuators)
5.	11079-95	1	Drop Tube Actuator Slider (plated)
6.	SB12426	1	Damper/ Shock
7.	11164-95	1	3 Bolt Mount Outer Case (plated)
8.	05424	2	5/16" External Tooth Lock Washer
9.	12557	1	Rue Cotter Pin for 5/8" Pin
**10.	05408	1	3/32" Cable with hooks
**12.	05693-95	1	Emergency Lever Spring (plated)
13.	05961	2	5/16"-18UNC x 5/8" Hex Head Bolt (gr.5)
14.	00618	4	1/4-20UNC x 2" Hex Head Bolt (gr.5)
15.	00057	4	1/4" Lock Washer
**16.	05951	1	Emergency Lever Assembly
17.	03876	1	Master Cylinder Cap w/ Diaphragm & O-ring
-	05849	1	O-Ring Only (not shown)
18.	05977	1	Push Rod Assembly
19.	00062	4	1/4"-20 UNC Hex Nut
** 20.	09153	-	Plastic Master Cyl. Gasket ONLY
21.	11190	1	Master Cylinder
22.	14798	1	90° Fitting
** 23.	03866-95	1	Lever Guide (plated)
24.	05687	1	Master Cylinder Protective Boot
25.	05986-95	1	Connecting Pin (plated)
26.	10965	1	Upper Slider
27.	10966	1	Lower Slider
28.	10967	2	Side Spacers
29.	12557	1	Master Cylinder Cap
30.	12397	1	Rue Cotter Pin for 7/8" Pin

-	8669113	-	DA91 Actuator w/ 2" eZ-Latch Coupler
-	5401	-	Lever Replacement Kit (incl. items w/**)
-	5482	-	Master Cyl. Replacement Kit (disc)
-	5876	-	eZ-Latch Coupler Repair Kit

Please order replacement parts by **PART NO.** and **DESCRIPTION**

DISC BRAKE PARTS BREAKDOWN AND PARTS LIST



ASSEMBLY

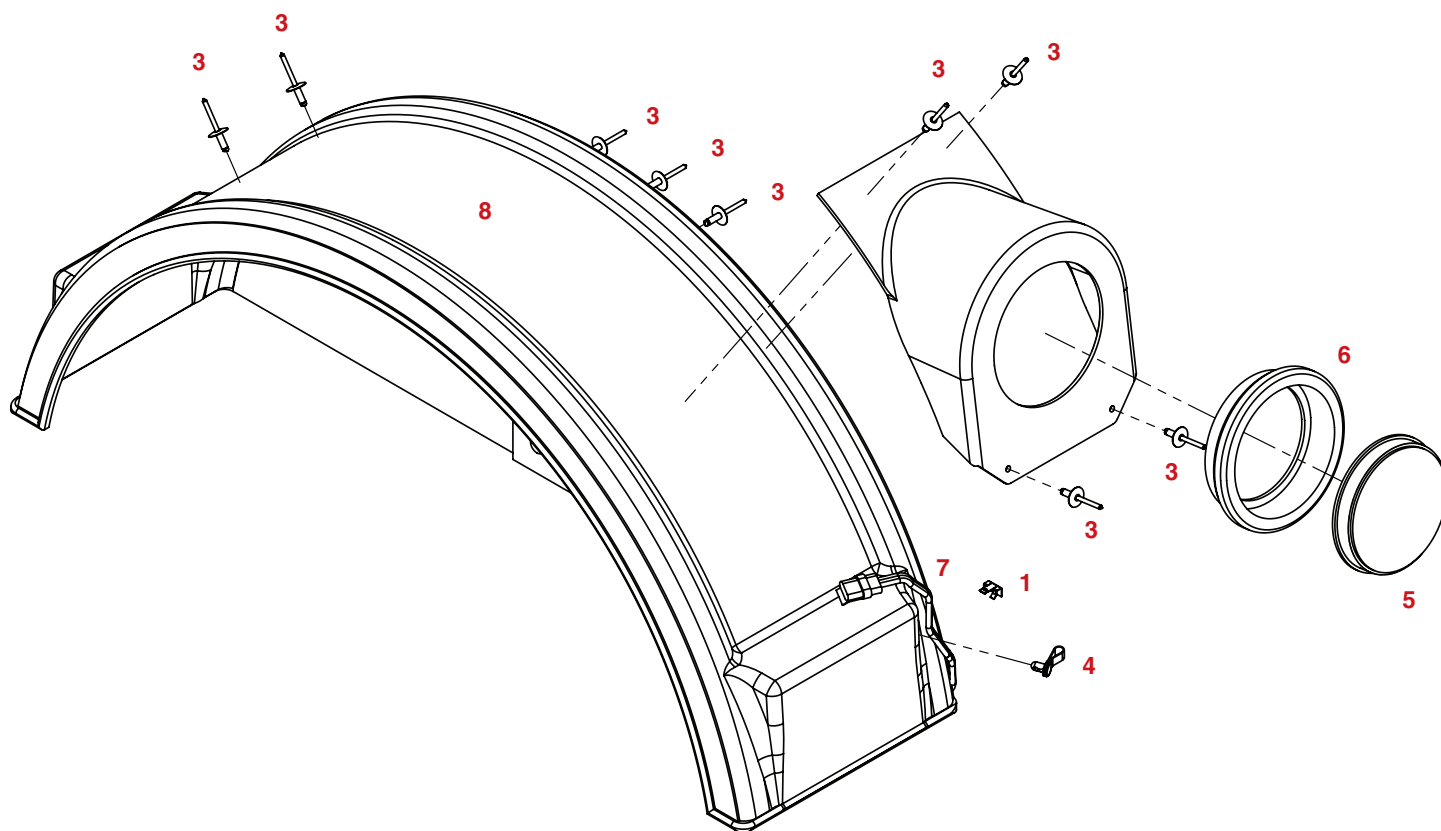
1. Begin by mounting the Hub Assembly and the Caliper Mounting Bracket (#1) to the Forged Arm using the (#6) 7/16" Epoxied Bolts (as shown).
2. Now place the Rotor (#2) onto the Hub Assembly as shown in the diagram.
3. Make sure the Brake Pads (#4) are correctly placed in the Caliper (#3).
4. Place Caliper (#3) over the Rotor (#2), and secure it to the Mounting Bracket (#1) using the Caliper Mounting Bolts (not shown).
5. When mounting left caliper only, rotate elbow fitting 1/4 turn tighter (clockwise) to position elbow fitting correctly. Hook up Brake Hoses (#5) and replace the Rim and Tire.

PARTS LIST

REF. NO.	PART NO.	REQD QTY.	DESCRIPTION
1.	13920-92	2	Caliper Mounting Plate
2.	03927-92	2	Rotor
3.	13825-92	2	Disc Brake Caliper Complete
4.	13824	1	Brake Pads (for one complete axle)
5.	SB544	2	Brake Line .188 x 44"
6.	02377	8	7/16"-20UNF Gr8 x 1-1/2" Epoxy Hex Hd Bolt
7.	04369	2	Hub (5 on 115mm Bolt Circle)
-	02917	-	12mm x 1-1/2" Replacement Stud Bolt
8.	02933	10	12mm Lug Nut Chrome
9.	09296	2	14x5.5" White Rim (115mm Bolt Circle)
10.	5965	2	Rim and Tire Assembly
-	14179	-	Kit Disc Brake Fitting (includes items listed below)
-	14798	1	90° Fitting (not shown)
-	-	2	Bleeder Valve
-	-	2	Rubber Bushing
-	-	2	Stainless Steel Bushing
-	-	2	Stainless Steel Bolt

Please order replacement parts by **PART NO.** and **DESCRIPTION.**

FENDER ASSEMBLY

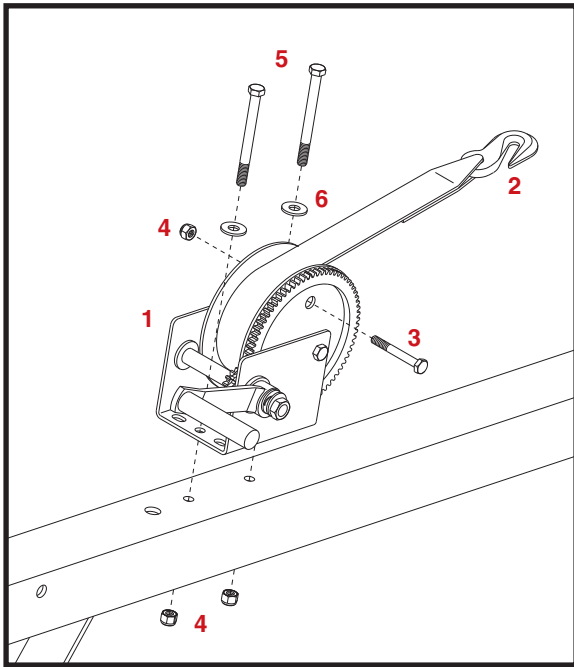


PARTS LIST

REF. NO.	PART NO.	QTY.	DESCRIPTION
	5978	-	Left Fender Assembly
	5979	-	Right Fender Assembly
1.	04425	2	Tinnerman U-clamp
2.	04508	1	Amber Reflector (not shown)
-	04804	1	Red Reflector (not shown)
3.	14722	9	3/16" x 1/2" Pop Rivet
4.	05443	1	Nylon Cable Hanger
5.	05446	1	4" Round Tail Light
6.	05447	1	Rubber Grommet for Light
7.	07081	1	Pigtail 3 Wire Plug In
8.	14121	1	Left Fender Assembly
-	14122	1	Right Fender Assembly

Please order replacement parts by **PART NO.** and **DESCRIPTION.**

OPTIONAL WINCH



PARTS LIST

REF. NO.	PART NO.	QTY.	DESCRIPTION
	KK2W	1	Optional Winch
1.	04620	1	Winch Mechanism (1400 capacity)
-	04621	-	Replacement Handle
2.	01738	1	Strap Assembly (includes strap & hook)
3.	02207	1	3/8"-16UNC x 3" Hex Hd. Bolt
4.	02592	3	3/8"-16UNC Nylon Insert Locknut
5.	02769	2	3/8"-16UNC x 4" Hex Head Bolt
6.	00059	2	3/8" Flatwasher

Please order replacement parts by **PART NO.** and **DESCRIPTION.**

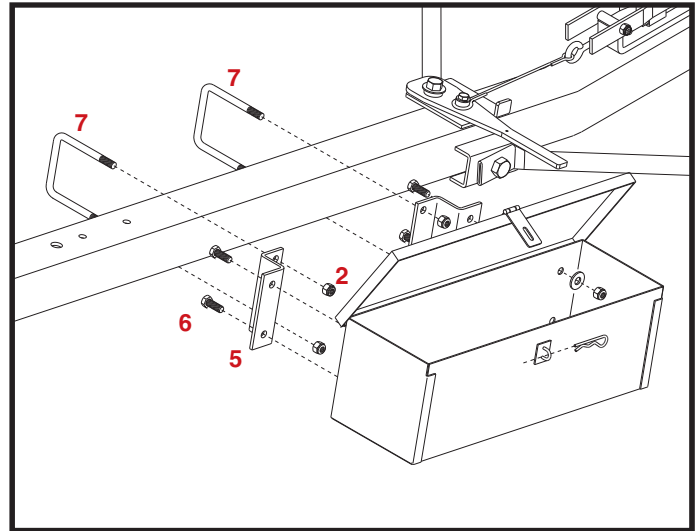
* All options may not mount on tow dolly simultaneously.*

OPTIONAL TOOL BOX

PARTS LIST

	RKTB	1	Optional Tool Box
1.	00059	4	3/8" Flatwasher
2.	02592	8	3/8"-16UNC Nylon Insert Locknut
3.	02718	1	Tool Box
4.	00182	1	Small Hair Pin
5.	02717	2	Mounting "Z" Bracket
6.	00907	4	3/8"-16UNC x 1" Hex Head Bolt (gr.5)
7.	02759	2	3/8"-16UNC x 3" Square U-Bolt

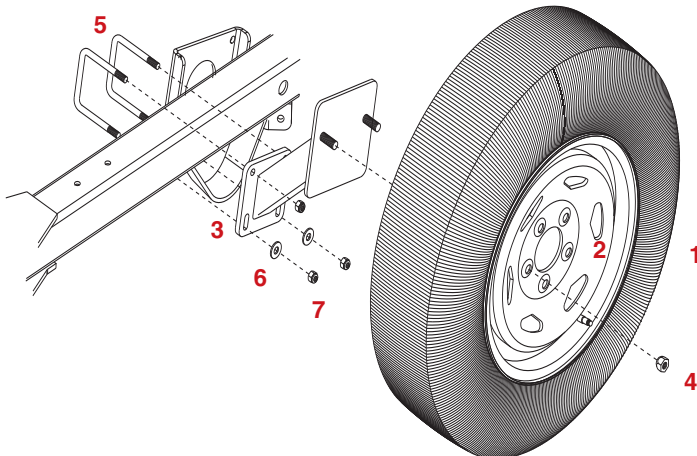
Please order replacement parts by **PART NO.** and **DESCRIPTION.**



* All options may not mount on tow dolly simultaneously.*

OPTIONAL SPARE TIRE and MOUNT

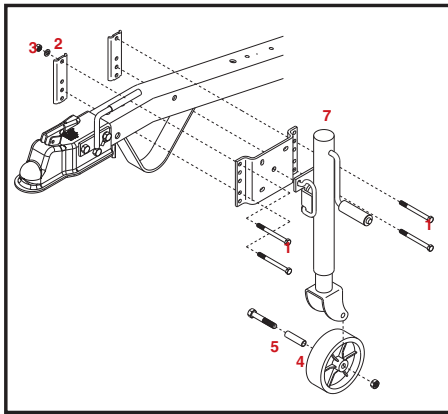
PARTS LIST



REF. NO.	PART NO.	QTY.	DESCRIPTION
	5965	1	Optional Spare Tire
1.	04826	1	ST205/75R 14"x"C" BSW Radial Tire
2.	09296	1	5.5 x 14" Rim
	RKSTM	1	Spare Tire Mounting Bracket
3.	02719	1	Spare Tire Bracket
4.	02213	2	Wheel Nut (12mm)
5.	02759	2	3/8"-16UNC Square U-Bolt
6.	00059	2	3/8" Flatwasher
7.	02592	4	3/8"-16UNC Nylon Insert Locknut

Please order replacement parts by **PART NO. & DESCRIPTION.**

* All options may not mount on tow dolly simultaneously.*



OPTIONAL WHEEL JACK

* All options may not mount on tow dolly simultaneously.*

-	11683	1	Optional Wheel Jack w/ hardware
1.	02769	4	3/8"-16 UNC x 4 Hex Head Bolt
2.	00060	4	3/8" Lock Washer
3.	00061	4	3/8"-16 UNC Hex Nut
4.	03646	1	Replacement Wheel only
5.	14542-95	1	Wheel Bushing for replacement only
6.	03129	1	Jack
7.	13303	1	Plastic Cap

Please order replacement parts by PART NO. and DESCRIPTION.

OPTIONAL LIGHT BAR

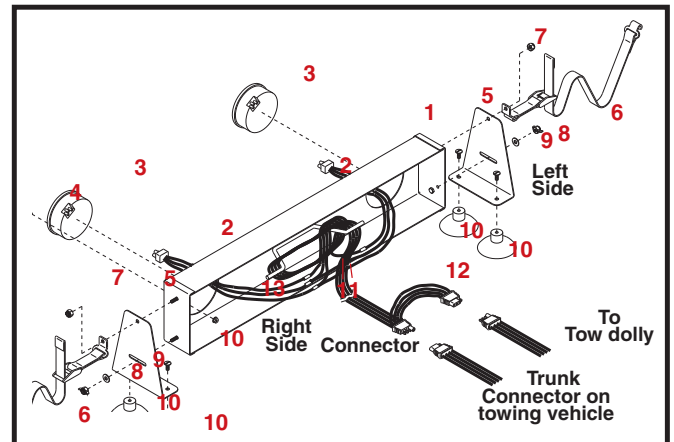
LIGHT BAR PARTS LIST

REF. NO.	PART NO.	QTY.	DESCRIPTION
	KKLB	1	Optional Light Bar
1.	02731	1	Light Bar Framework
2.	02313	2	Pigtail with 3-way Plug (for tail light)
3.	02308	2	Sealed Round Tail Light
4.	04869	6	#8 x 3/4" Oval Head Screw
5.	02732	2	Light Bar Side Plate
6.	02734	2	Mounting Clip with Strap
7.	02772	2	1/4"-20UNC Nylon Insert Locknut
8.	02770	2	1/4"-20UNC Nylon Insert Wing Nut
9.	00214	2	1/4" Flatwasher
10.	01778	4	3" Suction Cup w/ 1/4" x 3/4" Oval Head Bolt
11.	01883	6	Electrical Wire Splicer
12.	02198	1	Light Bar Wire Harness
13.	02312	6	Tinnerman Nut
-	01886	2	Wire Clip

Please order replacement parts by PART NO. and DESCRIPTION.

COLOR CODE for WIRING HARNESS

Wiring Harness		Triple Wire Plug
WHITE	Ground	WHITE
BROWN	Tail Lights and License Plate Light	BLACK
YELLOW	Left Turn and Stop	RED
GREEN	Right Turn and Stop	RED

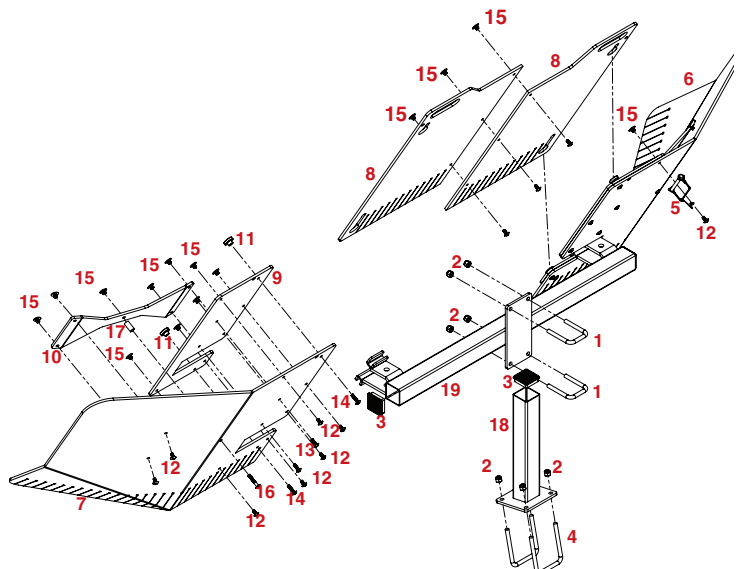


OPTIONAL SENTRY DEFLECTOR (5950)

SENTRY DEFLECTOR (5950) PARTS LIST

ITEM	PART #	DESCRIPTION	QTY
1	02128	U-BOLT, SQ, .375NC X 2.063 X 3.00	2
2	02592	NUT, .375NC NYLON LOCK	8
3	04193	CAP PLUG SQUARE 2 X 18 GA	3
4	02759	U-BOLT, SQ, .375 X 3.125 X 4.00	2
5	05337	SAFETY LOCK PIN ASSEMBLY	1
6	10131	ROCK GUARD, LEFT	1
7	10132	ROCK GUARD, RIGHT	1
8	10133	DEFLECTOR CENTER SECTION	2
9	10134	DEFLECTOR MOUNTING PLATE	2
10	10135	DEFLECTOR BRACE/HANDLE	2
11	10136	RETAINER BUTTON	4
12	10183	SCREW, .25 NC X .50 PHILLIPS HEAD	17
13	10184	SCREW, .25 NC X .75 PHILLIPS HEAD	4
14	10185	SCREW, .25 NC X 1.00 PHILLIPS HEAD	4
15	10186	T-NUT, .25 NC X .41 BARREL	23
16	11264	SCREW, .25 NC X 1.50 PHILLIPS HEAD	2
17	11265	SPACER BUSHING	2
18	13731-81	UPRIGHT POST MOUNT	1
19	13732-81	SENTRY CROSSMEMBER TD MNT	1

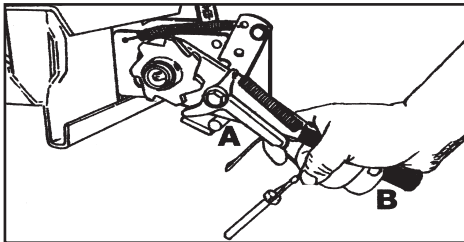
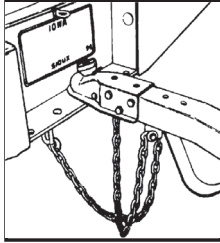
Please order replacement parts by PART NO. and DESCRIPTION.



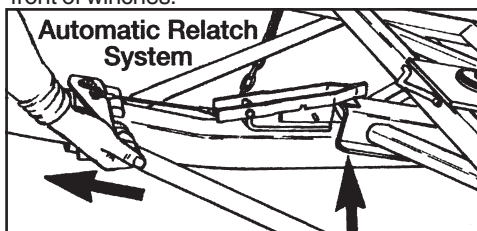
INSTRUCTIONS

Read these instructions completely before hooking, unhooking or using the tow dolly. Be sure all loading and unloading takes place on a level surface.

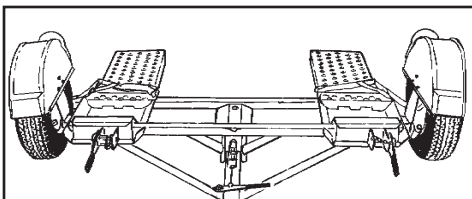
1 Make sure towing vehicle's parking brake is fully engaged. Tow dolly must be completely and properly hooked up to the truck before loading towed vehicle. Secure ball hitch to 2" (5,000 lb. rating for non-brake units; 6,000 lb. for brake units) towing vehicle ball. Make sure that the hitch and the hitch ball are in good condition and not rusted, loose or stripped. Both the hitch and the hitch ball must be securely attached to the towing vehicle. Make sure hitch is locked down and coupler hand wheel is tight. Crisscross safety chains under tongue and secure to towing vehicle. Connect tow dolly wire harness to towing vehicle and make sure lights operate correctly. If the tow dolly is equipped with surge brakes, securely fasten the brake actuator cable S-hook in a straight connection to the towing vehicle. Keep the cable connection at the towing vehicle as centered as possible (allow some slack for turning).



2 To release tie down strap for loading release safety pin and unroll straps by grasping ratchet handle pawl (A) and ratchet handle (B) at the same time and push down. Unroll strap enough to remove strap hooks and lay on the ground in front of winches.

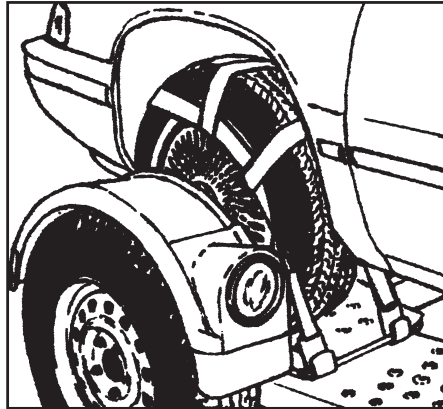


3 Before loading (and unloading) towed vehicle make sure platform and towed vehicle are in straight alignment. Tow dolly must be completely and properly hooked up to the towing vehicle. Towing vehicle must be at least 1000 lbs. heavier than the tow dolly and towed vehicle combined. Grasp bed release handle on tongue and pull toward coupler. This releases the tilt bed.

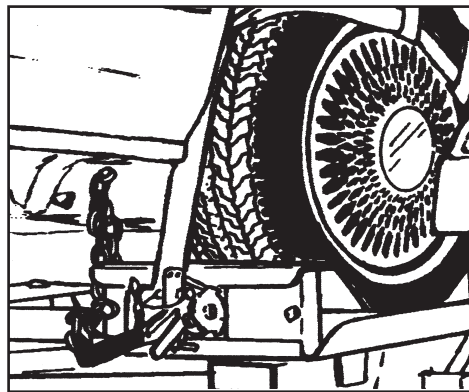


4 Make certain vehicle is centered on the ramps. With someone safely guiding you, slowly drive vehicle onto platform FRONT FORWARD.

(Any vehicle mounted on tow dolly must be mounted with front of the vehicle facing forward.) Drive towed vehicle onto the platform until tires touch the wheel stops on each side of the platform and platform returns to original level and locked position. Place towed vehicle in park or in gear, and fully engage parking brake. Lock steering wheel on towed vehicle with front tires in a straight position. *If the towed vehicle does not have a locking steering column the steering wheel must be tied securely.* Towed vehicle tires must fit in wheel troughs without overhanging sides. Bed will automatically latch as vehicle is loaded. **Visually check the latch to be sure it is secured.**



5 Center tie-down winches in front of tires on towed vehicle and place straps over tires. Place one tie-down strap over each front tire on towed vehicle and secure. If your tow dolly has straps with rear hooks, place one tie-down strap over each tire and secure to rods located at the rear of each platform. **NOTE: The short side of the hook must face the rear of the tow dolly.** Make sure tie-down winch is centered with the tire before tightening straps. Tighten each strap securely with ratchet winch. While tightening straps, pull cross strap forward to ensure even tightening. Tighten straps until each tire starts to flatten against tire stop. After each strap is tight insert a safety pin in each winch. The winch handle should always be down (horizontal) with the safety pins in place. Retighten straps after first 5 miles and check them every 50 miles thereafter to ensure that they are tight.



6 Hook the towed vehicle safety chains to frame of vehicle directly above the area where the chains are mounted on the tow dolly. Leave just enough slack in the chains to allow suspension movement on the towed vehicle.

Caution: Chains must not attach or go over steering or brake parts of towed vehicle.

7 Disconnect towed vehicle driveshaft (rear wheel drive and 4-wheel drive vehicles). Simply placing transmission in neutral is not sufficient to prevent damage to transmission. You must disconnect the drive shaft at the rear axle and remove or secure it to the frame or other structural member. If the driveshaft is removed it may be necessary to cap the transmission tail shaft to prevent transmission fluid loss.

Rear-engine transaxle vehicles cannot be towed with a tow dolly. **(ALL VEHICLES MOUNTED ON THE TOW DOLLY MUST BE MOUNTED WITH THE FRONT OF VEHICLE FACING FORWARD).** Consult your vehicle's owners manual to help determine if and how your vehicle is suitable to be towed.

8 Release towed vehicle parking brake and ensure that the steering wheel is locked in a straight forward position. If the vehicle is not equipped with locking steering column, the steering wheel must be tied securely in a straight forward position.

Drive approximately 100 feet. Stop and perform a safety check. Check tire straps, bolts, chains, coupler, tilt bed and other items to ensure that they are tight and in the correct position. In addition, check all taillights and stoplights to make sure that they are operating properly. Repeat the safety check after the first 5 miles and every 50 miles thereafter.

DO NOT BACK UP!!

The tow dolly is not a trailer and cannot be backed up because it swivels both at the coupler and car platform. If you must back up, unload car first, disconnect the coupler, and move car and dolly separately.

Play It Safe: Park where you can pull out going forward.

9 To unload vehicle

- ☐ Do not unhook tow dolly from the towing vehicle until the towed vehicle is completely unloaded from tow dolly.
- ☐ Fully engage towing vehicle's parking brake.
- ☐ Make sure that platform and towed vehicle are straight.
- ☐ Reinstall driveshaft, if necessary.

- ☐ Ensure that towed vehicle parking brake is fully engaged, then loosen and remove wheel straps.
- ☐ Remove vehicle safety chains from towed vehicle.
- ☐ Release tilt bed lock down.
- ☐ Release parking brake on towed vehicle and slowly back the towed vehicle off the tow dolly.

10 To pull the tow dolly empty -

Make sure the straps are secured in the storage position. Towed vehicle safety chains must be stored to prevent being drug on the road. Tow dollies with hook type straps, the hook attaches to the rear of the ramp for storage, then tighten strap using ratchet. The ratchet handle should always be left in a down (horizontal) position when towing tow dolly loaded or unloaded. **DO NOT ATTEMPT TO PULL TOW DOLLY WITH WHEEL PLATFORM IN LOADING (tilted) POSITION.**



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